Aquatic Animal Health Standards Commission

October 2006 Report

CHAPTER 4.1.4.

TETRAHEDRAL BACULOVIROSIS

Article 4.1.4.1.

For the purposes of the *Aquatic Code*, tetrahedral baculovirosis means *infection* with *Baculovirus penaei* (BPV). This virus is closely related to *Penaeus monodon baculovirus* (Chapter 4.1.5.) which has been classified as a tentative species in the genus *Nucleopolyhedrovirus*. Common synonyms are listed in Chapter 4.1.4. of the *Aquatic Manual*.

Methods for surveillance and diagnosis are provided in the *Aquatic Manual*.

Article 4.1.4.2.

Scope

The recommendations in this Chapter apply to the following genera: *Penaeus, Trachypenaeus* and *Protrachypene*. These recommendations also apply to any other *susceptible species* referred to in the *Aquatic Manual* when traded internationally.

Article 4.1.4.3.

Commodities

1. When authorising the importation or transit of the following *commodities*, the *Competent Authorities* of the *importing country* should not require any tetrahedral baculovirosis related conditions, regardless of the tetrahedral baculovirosis status of the *exporting country*, *zone* or *compartment*.

    a) For the species referred to in Article 4.1.4.2. for any purpose:

        i) commercially sterile canned products;

        ii) boiled products (e.g. boiled whole shrimp or tails, lobsters, crabs);

        iii) chemically extracted chitin;

        iv) crustacean meals or by-products made non-infectious by heating or drying (e.g. flame dried or sun dried);

        v) crustacean products made non-infectious through processing as dry feeds (e.g. pelleted or extruded feeds);

        vi) biological samples preserved for diagnostic applications in such a manner as to inactivate the BPV (e.g. formalin or alcohol preserved samples).

    b) The following products destined for human consumption from species referred to in Article 4.1.4.2 which have been prepared in such a way as to minimise the likelihood of alternative uses:

i) chemically preserved products (e.g. salted, pickled, marinated, pastes, etc.);

ii) products that have been heat treated or dried (e.g. ready prepared meals) in a manner to ensure inactivation of the pathogen;

iii) de-headed and ~~de-veined~~ "de-veined" (intestine removed) shrimp tails.

For the *commodities* listed in point 1b), Member Countries should consider introducing internal measures to prevent the *commodity* being used for any purpose other than for human consumption.

2. When authorising the importation or transit of the *commodities* of a species referred to in Article 4.1.4.2., other than those listed in point 1 of Article 4.1.4.3., the *Competent Authorities* of the *importing country* should require the conditions prescribed in Articles 4.1.4.7. to 4.1.4.11., relevant to the tetrahedral baculovirosis status of the *exporting country*, *zone* or *compartment*.

3. When considering the importation or transit of any ~~other~~ *commodity* of a species not referred to in Article 4.1.4.2. but which could reasonably be expected to be a potential BPV carrier from an *exporting country*, *zone* or *compartment* not declared free of tetrahedral baculovirosis, the *Competent Authorities* of the *importing country* should conduct an analysis of the risk of introduction, establishment and spread of BPV, and the potential consequences, associated with the importation of the *commodity* prior to a decision. The *exporting country* should be informed of the outcome of this assessment.

Article 4.1.4.4.

Tetrahedral baculovirosis free country

A country may make a *self-declaration of freedom* from tetrahedral baculovirosis if it meets the conditions in points 1, 2, 3 or 4 below.

If a country shares a *zone* with one or more other countries, it can only make a *self-declaration of freedom* from tetrahedral baculovirosis if all the areas covered by the shared water are declared tetrahedral baculovirosis free countries or zones (see Article 4.1.4.5.).

1. A country where none of the *susceptible species* referred to in Article 4.1.4.2. is present may make a *self-declaration of freedom* from tetrahedral baculovirosis when *basic biosecurity conditions* have been met continuously in the country for at least the past 2 years.

OR

2. A country where the species referred to in Article 4.1.4.2. are present but there has never been any observed occurrence of the *disease* for at least the past 10 years despite conditions that are conducive to its clinical expression, as described in Chapter X.X.X. of the *Aquatic Manual*, may make a *self-declaration of freedom* from tetrahedral baculovirosis when *basic biosecurity conditions* have been met continuously in the country for at least the past 2 years.

OR

3. A country where the last observed occurrence of the *disease* was within the past 10 years or where the *infection* status prior to *targeted surveillance* was unknown, for example because of the absence of conditions conducive to clinical expression, as described in Chapter X.X.X. of the *Aquatic Manual*, may make a *self-declaration of freedom* from tetrahedral baculovirosis when:

   a) *basic biosecurity conditions* have been met continuously for at least the past 2 years; and

   b) *targeted surveillance*, as described in Chapters 1.1.4. and X.X.X. of the *Aquatic Manual*, has

been in place for at least the last 2 years without detection of BPV.

OR

4. A country that has previously made a *self-declaration of freedom* from tetrahedral baculovirosis but in which the *disease* is subsequently detected may not make a *self-declaration of freedom* from tetrahedral baculovirosis again until the following conditions have been met:

   a) on detection of the *disease*, the affected area was declared an *infected zone* and a *buffer zone* was established; and

   b) infected populations have been destroyed or removed from the *infected zone* by means that minimise the risk of further spread of the *disease*, and the appropriate *disinfection* procedures (see *Aquatic Manual*) have been completed; and

   c) *targeted surveillance*, as described in Chapters 1.1.4. and X.X.X. of the *Aquatic Manual*, has been in place for at least the past 2 years without detection of BPV.

   In the meantime, part of the non-affected area may be declared a free *zone* provided that they meet the conditions in point 3 of Article 4.1.4.5.

Article 4.1.4.5.

Tetrahedral baculovirosis free zone or free compartment

A *zone* or *compartment* within the *territory* of one or more countries not declared free from tetrahedral baculovirosis may be declared free by the *Competent Authority(ies)* of the country(ies) concerned if the *zone* or *compartment* meets the conditions referred to in points 1, 2, 3 or 4 below.

If a *zone* or *compartment* extends over more than one country, it can only be declared a tetrahedral baculovirosis free *zone* or *compartment* if all the relevant *Competent Authorities* confirm that the conditions have been met.

1. A *zone* or *compartment* where none of the *susceptible species* referred to in Article 4.1.4.2. is present may be declared free from tetrahedral baculovirosis when *basic biosecurity conditions* have been met continuously in the *zone* or *compartment* for at least the past 2 years.

OR

2. A *zone* or *compartment* where the species referred to in Article 4.1.4.2. are present but in which there has not been any observed occurrence of the *disease* for at least the past 10 years despite conditions that are conducive to its clinical expression, as described in Chapter X.X.X. of the *Aquatic Manual*, may be declared free from tetrahedral baculovirosis when *basic biosecurity conditions* have been met continuously in the *zone* or *compartment* for at least the past 2 years.

OR

3. A *zone* or *compartment* where the last observed occurrence of the *disease* was within the past 10 years or where the *infection* status prior to *targeted surveillance* was unknown, for example because of the absence of conditions conducive to clinical expression, as described in Chapter X.X.X. of the *Aquatic Manual*, may be declared free from tetrahedral baculovirosis when:

   a) *basic biosecurity conditions* have been met continuously for at least the past 2 years; and

   b) *targeted surveillance*, as described in Chapters 1.1.4. and X.X.X. of the *Aquatic Manual*, has been in place, through the *zone* or *compartment*, for at least the past 2 years without detection

of BPV.

OR

4. A *zone* previously declared free from tetrahedral baculovirosis but in which the *disease* is detected may not be declared free from tetrahedral baculovirosis again until the following conditions have been met:

   a) on detection of the *disease*, the affected area was declared an *infected zone* and a *buffer zone* was established; and

   b) infected populations have been destroyed or removed from the *infected zone* by means that minimise the risk of further spread of the *disease*, and the appropriate *disinfection* procedures (see *Aquatic Manual*) have been completed; and

   c) *targeted surveillance*, as described in Chapters 1.1.4. and X.X.X. of the *Aquatic Manual*, has been in place for at least the past 2 years without detection of BPV.

Article 4.1.4.6.

Maintenance of free status

A country, *zone* or *compartment* that is declared free from tetrahedral baculovirosis following the provisions of points 1 or 2 of Articles 4.1.4.4. or 4.1.4.5. (as relevant) may maintain its status as tetrahedral baculovirosis free provided that *basic biosecurity conditions* are continuously maintained.

A country, *zone* or *compartment* that is declared free from tetrahedral baculovirosis following the provisions of point 3 of Articles 4.1.4.4. or 4.1.4.5. (as relevant) may discontinue *targeted surveillance* and maintain its status as tetrahedral baculovirosis free provided that conditions that are conducive to clinical expression of tetrahedral baculovirosis, as described in Chapter X.X.X. of the *Aquatic Manual*, exist, and *basic biosecurity conditions* are continuously maintained.

However, for declared free *zones* or *compartments* in infected countries and in all cases where conditions are not conducive to clinical expression of tetrahedral baculovirosis, *targeted surveillance* needs to be continued at a level determined by the *Competent Authority* on the basis of the likelihood of *infection*.

Article 4.1.4.7.

Importation of live aquatic animals from a country, zone or compartment declared free from tetrahedral baculovirosis

When importing live *aquatic animals* of species referred to in Article 4.1.4.2. from a country, *zone* or *compartment* declared free from tetrahedral baculovirosis, the *Competent Authority* of the *importing country* should require an *international aquatic animal health certificate* issued by the *Competent Authority* of the *exporting country* or a *certifying official* approved by the *importing country* attesting that, on the basis of the procedures described in Articles 4.1.4.4. or 4.1.4.5. (as applicable), the place of production of the *commodity* ~~consignment~~ is a country, *zone* or *compartment* declared free from tetrahedral baculovirosis.

The *certificate* should be in accordance with the Model Certificate in Appendix 4.1.3.

This Article does not apply to *commodities* listed in point 1 of Article 4.1.4.3.

Article 4.1.4.8.

Importation of live aquatic animals for aquaculture from a country, zone or compartment not declared free from tetrahedral baculovirosis

1. When importing, for *aquaculture*, live *aquatic animals* of species referred to in Article 4.1.4.2. from a country, *zone* or *compartment* not declared free from tetrahedral baculovirosis, the *Competent Authority* of the *importing country* should assess the risk and apply risk mitigation measures such as:

    a) the direct delivery into and holding of the consignment in *quarantine* facilities;

    b) the continuous isolation of the imported live *aquatic animals* and their first generation progeny from the local environment;

    c) the treatment of all effluent and waste materials from the processing in a manner that ensures inactivation of BPV.

2. If the intention of the introduction is the establishment of new genetic lines, international standards, such as the Guidelines of the International Council for the Exploration of the Seas (ICES), should be followed.

3. For the purposes of the *Aquatic Code*, the ICES Guidelines may be summarised to the following main points:

    a) identify stock of interest (cultured or wild) in its current location;

    b) evaluate stock's health/*disease* history;

    c) take and test samples for BPV, pests and general health/*disease* status;

    d) import and quarantine in a secure facility a founder (F-0) population;

    e) produce F-1 generation from the F-0 stock in *quarantine*;

    f) culture F-1 stock and at critical times in its development (life cycle) sample and test for BPV and perform general examinations for pests and general health/*disease* status;

    g) if BPV is not detected, pests are not present, and the general health/*disease* status of the stock is considered to meet the *basic biosecurity conditions* of the *importing country*, *zone* or *compartment*, the F-1 stock may be defined as tetrahedral baculovirosis free or specific pathogen free (SPF) for BPV;

    h) release SPF F-1 stock from *quarantine* for *aquaculture* or stocking purposes in the country, *zone* or *compartment*.

This Article does not apply to *commodities* listed in point 1 of Article 4.1.4.3.

Article 4.1.4.9.

Importation of live aquatic animals for human consumption from a country, zone or compartment not declared free from tetrahedral baculovirosis

When importing, for human consumption, live *aquatic animals* of species referred to in Article 4.1.4.2. from a country, *zone* or *compartment* not declared free from tetrahedral baculovirosis, the *Competent Authority* of the *importing country* should require that:

1. the consignment be delivered directly to and held in isolation until consumption; and

2. all effluent, dead *aquatic animals* and waste materials from the processing be treated in a manner that ensures inactivation of BPV.

Member Countries should consider introducing internal measures to prevent such *commodities* being used for any purpose other than for human consumption.

This Article does not apply to *commodities* listed in point 1 of Article 4.1.4.3.

Article 4.1.4.10.

Importation of aquatic animal products from a country, zone or compartment declared free from tetrahedral baculovirosis

When importing *aquatic animal products* of species referred to in Article 4.1.4.2. from a country, *zone* or *compartment* declared free from tetrahedral baculovirosis, the *Competent Authority* of the *importing country* should require an *international aquatic animal health certificate* issued by the *Competent Authority* of the *exporting country* or a *certifying official* approved by the *importing country* attesting that, on the basis of the procedures described in Articles 4.1.4.4. or 4.1.4.5. (as applicable), the place of production of the consignment is a country, *zone* or *compartment* declared free from tetrahedral baculovirosis.

The *certificate* should be in accordance with the Model Certificate in Appendix 4.2.2.

This Article does not apply to *commodities* listed in point 1 of Article 4.1.4.3.

Article 4.1.4.11.

Importation of aquatic animal products from a country, zone or compartment not declared free from tetrahedral baculovirosis

When importing *aquatic animal products* of species referred to in Article 4.1.4.2. from a country, *zone* or *compartment* not declared free from tetrahedral baculovirosis, the *Competent Authority* of the *importing country* should assess the risk and apply appropriate risk mitigation measures.

This Article does not apply to *commodities* listed in point 1 of Article 4.1.4.3.